

**REMARKS**

Claims 1-7, 13, 14, 16-20, 23 and 25 are pending in this application. By this Amendment, claims 1, 5, 16, 19, 23 and 25 are amended. The amendments introduce no new matter because they are supported by at least paragraph [0082] of the specification, as originally filed. Claims 8-12, 15, 21, 22, 24 and 26 are canceled without prejudice to, or disclaimer of, the subject matter recited in those claims. The outstanding Office Action was mailed on August 25, 2005. Applicants filed a Request for Reconsideration on November 14, 2005. An Advisory Action was mailed on December 5, 2005. Applicants filed a Notice of Appeal with a Petition for One-Month Extension of Time on December 27, 2005. A Request for Continued Examination is attached. Reconsideration of the application based on the above amendments and the following remarks is respectfully requested.

Claims 8-12, 15, 21, 22, 24 and 26 are canceled as drawn to non-elected inventions and/or species.

The Office Action, in paragraph 3, rejects claims 1-5, 13, 14 and 16-18 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,290,352 to Maramuto et al. (hereinafter "Maramuto") and U.S. Patent No. 6,180,049 to Jang et al. (hereinafter "Jang"). The Office Action, in paragraph 4, rejects claims 1-7, 13, 14, 16-20, 23 and 25 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,145,981 to Akahira et al. (hereinafter "Akahira I") and Jang. The Office Action, in paragraph 5, rejects claims 1-7, 13, 14 and 16-18 under 35 U.S.C. §103(a) as being unpatentable over EP 0832745 A2 (hereinafter "EP '745") and Jang. The Office Action, in paragraph 6, rejects claims 19, 20, 23 and 25 under 35 U.S.C. §103(a) as being unpatentable over EP '745 and Jang and further in view of Akahira. These rejections are respectfully traversed.

The Maramuto, Akahira and EP references are drawn to systems and methods for color filter manufacturing, color filters manufactured by those methods, display devices

incorporating those color filters and apparatuses incorporating those display devices. These references generally refer to forming line patterns on recording media by discharging inks from ink discharging nozzles in ink jet heads, attempting to optimize and/or make more efficient the color filter manufacturing methods incorporating the ink jet heads. In each of paragraphs 3-6, the Office Action concedes that Maramuto, Akahira and EP '547 do not disclose a control device including first, second and third motors as recited in the subject matter of the pending claims, and specifically positively recited in independent claims 1, 5, 16, 19, 23 and 25.

Rather, the Office Action, in each case, relies on Jang as allegedly disclosing "that it is known to provide a control device including first, second and third motors" in order to provide movement capabilities to a deposition or ink-jet system (see paragraph 7 of the Office Action). The Office Action asserts, in each case, that Jang discloses linear motion devices as a preferred motor system, but also discloses rotational motors such servomotors as alternatives concluding that one skilled in the art would understand that the use of systems that move the deposition head would recognize advantages pertaining to such movement. In this manner, the Office Action attempts to render obvious the subject matter of the pending claims over various combinations of the applied prior art references. The analysis of the Office Action fails for the following reasons.

First, Jang is not directed to color filter manufacturing methods and/or processes, or any field of endeavor related thereto. Rather, Jang teaches a solid freeform fabrication process and apparatus for making a three-dimensional object, the process involving positioning a material deposition sub-system linearly "in a plane defined by first and second directions and in a third direction orthogonal to this plane to form deposition materials in a three-dimensional shape" (Abstract). As such, Jang is not analogous art for the purposes of formulating an obviousness rejection of the pending claims.

MPEP §2141.01(a) provides that "[i]n order to rely on a reference as a basis for rejection of an Applicant's invention, the reference must either be in the field of Applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned" (emphasis added). Further, "[a] reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem" (emphasis added). It is unreasonable to presume that a solid freeform fabrication or deposition process and apparatus for making a three-dimensional object would have logically commended itself to an inventor attempting to improve ink jet discharge of color filter materials onto a substrate for producing electroluminescent filters.

Second, in addition to the other applied prior art references not being combinable with Jang for at least Jang being a reference in a non-analogous art as indicated above, further the alleged motivation to combine the reference asserted in the Office Action falls short of meeting the required standard for such a showing. MPEP §2143.01 instructs that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination."

MPEP §2143.01 further instructs that "[a]lthough a prior art device 'may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so.'" *See also In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir.

1990). Applicant respectfully submits that the rejection of at least independent claim 1 is improper in view of at least MPEP §2143.01 because the Office Action lacks the required specific evidence of a teaching, suggestion or motivation in the prior art for one of ordinary skill to combine the references. The asserted motivations to provide more precise alignment of the heads and lessen floor space taken up by the apparatus simply do not meet this standard as they

are not shown to be connected to any objective evidence in the prior art that would have led to any desirability for making any of the asserted combinations of references set forth in the Office Action.

Third, the Office Action overly broadly reads the disclosure of Jang in unreasonably finding that the disclosed linear motion devices of Jang can reasonably be considered to correspond to the subject matter recited in the independent claims. Jang teaches "[m]otor means are preferably high resolution reversible stepper motors, although other types of drive motors may be used, including linear motors, servomotors, synchronous motors, D.C. motors, and fluid motors. Mechanical drive means including linear motion devices, motors and gantry type positioning stages are well known in the art." As such, Jang does, in fact, teach the use of any of a number of different types of motors. Jang does not, however, teach any motion other than a linear motion in an X-, a Y- and/or a Z-direction. The disclosure of other types of motors cannot reasonably be considered to teach motors which impart rotational motor motion to, for example, an ink jet head.

Independent claims 1, 5, 16, 19, 23 and 25 recite, among other features, the control device at least a first motor for oscillating and rotating the ink jet head around an axis parallel to the scanning direction, a second motor for oscillating and rotating the ink jet head around an axis parallel to a sub-scanning direction that is perpendicular to the scanning direction, and a third motor for moving the ink jet head orthogonal to the plane defined by the scanning direction and the sub-scanning direction. It is an unreasonably overly broad conclusion to attempt to read motors for imparting linear motion, as disclosed in Jang, to correspond to the specifically positively recited first, second and third motors of the pending claims, at least two of which are recited to impart rotational and/or oscillating motion to the inkjet heads.

For at least these reasons, any permissible combination of Maramuto, Akahira, or EP '547, in combination with Jang, cannot reasonably be considered to have suggested the

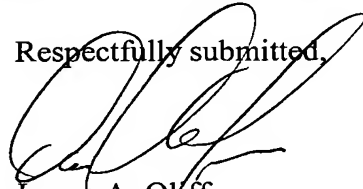
combinations of all the features in at least independent claims 1, 5, 16, 19, 23 and 25. Further, claims 2-4, 6, 7, 13, 14, 17 and 18 would also not have been suggested by any permissible combination of the applied prior art references for at least the respective dependence of these claims on allowable independent claims, as enumerated above.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-7, 13, 14, 16-20, 23 and 25 under 35 U.S.C. §103(a) as being unpatentable over any combination of the applied prior art references are respectfully requested.

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-7, 13, 14, 16-20, 23 and 25 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number set forth below.

Respectfully submitted,



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Attachment:  
Request for Continued Examination

JAO:DAT

Date: February 24, 2006

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